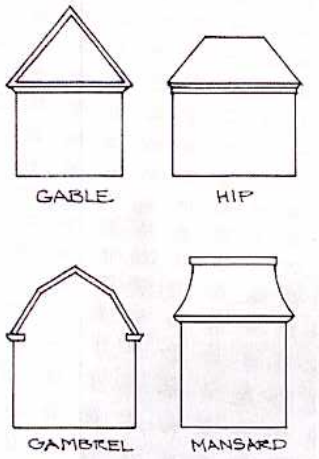
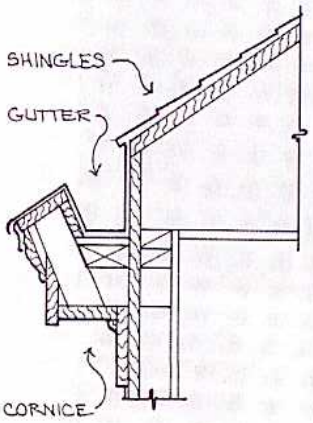
# CHAPTER 2 CHANGES TO BUILDINGS




Basic Roof Forms

The features of this hip roof include pedimented dormers, a center gable, and a corner tower. A flat roof with balustrade shelters the entry portico. A shed roof encloses the wraparound porch.




Built-in Gutter Detail

## Roofs

By their shape, features, materials, and details, roofs can contribute significantly to the historic character of buildings. The roof form is essential to the perceived overall form of a building. The pattern, the scale, the texture, and the color of roofing materials further define the historic character of a roof. Through variations in line, pitch, and overhang, the roof can also reveal changes and additions to a historic building over time.

By far the most typical roof shapes found in the district are gable and hip. Both cross-gable and more complex multiple-gable roofs are common variations of the simple gable form. Mansard and gambrel roofs are less common. Shed roofs and occasional flat roofs are primarily confined to porches and rear additions.

A variety of roof features contribute to the character of the historic district. Chimneys and dormers are typical ones. Cupolas, balustrades, and turrets add to the diversity.

Roofing materials found in the district include metal, slate, and clay tile, but the most common material by far is asphalt shingle. A relatively small number of metal roofs, both standing seam and pressed-metal shingle, survive. Slightly more common are slate roofs, including some with highly decorative patterns. Several clay tile roofs remain as well. Asphalt shingles may be the original roofing material on early twentieth century buildings or the replacement roofing on older buildings. They are composed of asphalt-impregnated felt coated with ceramic or stone granules. These composition shingles are available in a variety of colors, but shingles in dark colors are the most appropriate because they often replaced earlier roofing materials such as metal or slate that were traditionally dark in color.

## Maintenance and Repair

Beyond its visual design role, the roof provides a weather-tight covering for any structure. Generally, the roofing system also includes the controlled removal of rainwater through gutters and downspouts. Maintenance of the entire system, including elimination of moss or vegetation that compromises its surface material or drainage, is critical.

The protective role of roofs requires attention to the integrity of the roofing material—especially where changes in roofing planes or penetration of a chimney or a dormer interrupts the roofline—as well as continuing maintenance of all gutters, downspouts, flashing, and coping. Concealed, or built-in, gutters require routine monitoring and maintenance to avoid damage from unseen leaks in their decorative cornices. Roof and soffit vents facilitate the drying of wet attic or soffit areas caused by leaks or condensation.

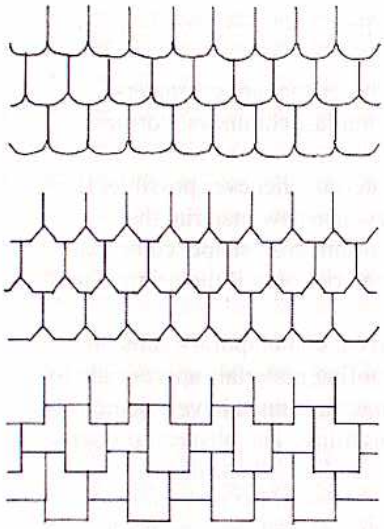
Historically, valley flashing was the typical treatment at open valleys where roofing materials were joined at different planes. Although the technique of weaving asphalt shingles at roof valleys has become common practice, the valleys then deteriorate more rapidly than with traditional valley-flashing techniques. Copper, galvanized metal, and rolled aluminum with a baked-enamel finish are all more effective and appropriate choices for valley flashing.

All metal roofs except copper ones require a protective coat of paint to avoid corrosion due to moisture. Introducing incompatible metal fasteners or flashing on a metal roof can result in galvanic corrosion, and patching metal roofs with roofing tar accelerates the deterioration of the metal.

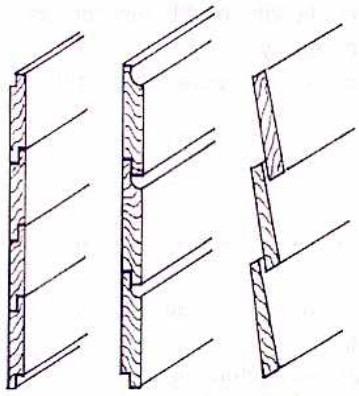
Slate and tiles are brittle but very durable roofing materials. They often survive the life of the original setting nails, flashing, or sheathing. Fortunately, they can be reset once other repairs are made, to provide long-lasting protection of the structure.
As asphalt shingles age, they lose their textured surface coating and begin to curl and buckle. The life of a good-quality asphalt-shingle roof is 20Ð30 years. By contrast, a properly maintained metal roof will last about 70 years and a slate roof more than 100.

## Roofs: Guidelines

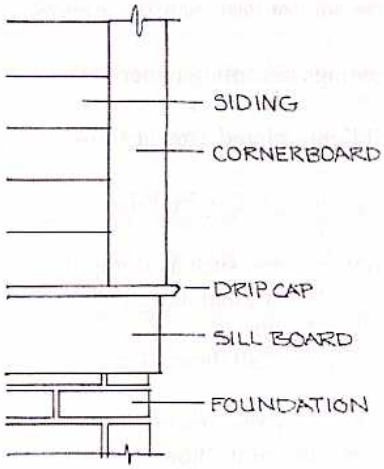
1. Retain and preserve the original shape, line, pitch, and overhang of historic roofs.
2. Retain and preserve all architectural features that are character-defining elements of the roof, such as cupolas, chimneys, dormers, and turrets.
3. Retain and preserve historic roofing material whenever possible. If repair or partialreplacement is necessary, use new material that matches the historic material in composition, size, shape, color, pattern, and texture. Consider substitute material only if the original material is not technically feasible.
4. When an entire roof area must be replaced, contemporary substitute materials that closely imitate historic roofing materials appropriate to the structure may be used. Substitute materials must have a demonstrated record of overall quality and durability. The physical properties of the substitute materials must be similar to those of the historic materials they mimic. The physical properties of the new roof area should closely match or complement other roofed areas on the building.
5. Protect and maintain the roofing system in appropriate ways:
    - Repair leaks promptly to limit related damage to the roof and the building.
    - Provide temporary protection to a leaking roof before repairs.
    - Clean gutters and downspouts regularly.
    - Eliminate any vegetation that may cause deterioration of the roof, the gutters, or the downspouts.
    - Replace deteriorated flashing with first-quality flashing.
    - Inspect the roof sheathing for signs of insect infestation or moisture damage.
    - Provide adequate ventilation of the attic space to prevent condensation.
    - Provide adequate anchorage for roofing material to guard against wind and moisture damage.
6. Locate roof ventilators, antennas, and solar collectors on non-character-defining roofs or inconspicuously on rear slopes where they will not be visible from the street. It is not appropriate to locate them on front or street elevations.
7. Install low-profile ridge vents if they are desired, provided that they do not diminish the original design of the roof or destroy historic roofing materials and details.
8. It is not appropriate to paint or apply coatings to roofing material that was historically not coated.
9. Generally, it is not appropriate to install light-colored asphalt shingles.
10. Generally, it is not appropriate to replace concealed, or built-in, gutters with exposed gutters.
11. It is not appropriate to introduce new roof features, such as skylights, vents, and dormers, if they would diminish the original design of the roof or damage historic roofing materials or features.
12. If new gutters and downspouts are necessary, install them so that no architectural features are damaged or lost.
13. Coat replacement gutters and downspouts with paint or a baked-enamel finish in a color appropriate to the color of the house, unless they are made of copper.



Typical Wood Shingle Patterns
From top: fish scale; imbricated; staggered butt.



Typical Wood Sidings
From left: flush; drop; clapboard.




## Exterior Walls and Trim

The form, the materials, and the details of exterior walls can contribute to a building's historic quality. Bays and turrets add to the diversity of wall forms in the district. The pattern, the scale, the texture, the color, and the detail of historic wall materials provide distinctiveness and scale to buildings. A variety of architectural details, including cornerboards, brackets, and quoins, also add character to historic buildings.

Brick and clapboard siding are the most common exterior wall materials in the district. Clapboards are wooden boards with the bottom edge slightly thicker than the top edge. They are installed with a horizontal overlap, generally of one inch. The width of exposed board varies depending on the style and the age of the building. Other types of wooden siding, such as flush siding and drop siding, are also found. Stucco and stone can be seen on a number of buildings. Some exteriors combine materials, such as clapboards with wooden shingles or stucco with half timbers. A variety of shingle shapes and patterns are evident, including imbricated, fish scale, and staggered butt.

Many clapboard houses have been covered in aluminum or vinyl siding in recent years, resulting in a loss of detail and historic character. Because of this loss, the application of such substitute siding is not acceptable in the historic district. Further, damage to remaining exterior materials during installation of substitute siding and the danger of undetected moisture and insect damage make substitute siding undesirable. Removal of substitute siding and restoration of the original exterior siding is encouraged.

## Maintenance and Repair

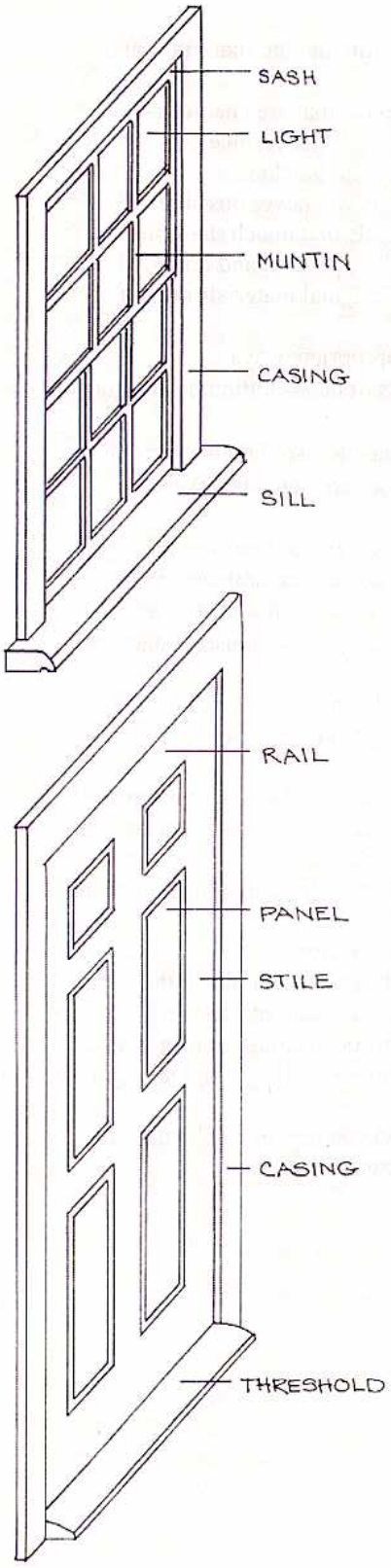
Typical problems encountered with wooden siding and trim, such as peeling paint and rot, generally result from a lack of proper scraping, caulking, and painting to protect the wood from moisture. To ensure the soundness of a wooden structure, all the cracks and joints in the siding and the trim must be sealed to prevent water from penetrating the wood. Further, all the connections between the siding and various trim pieces should be inspected regularly and caulked as necessary with a high-quality compound. Minor damage to existing siding can often be repaired with a wood consolidant or epoxy. If major damage or deterioration dictates replacement of a clapboard, the new one should match the original in dimension, profile, and spacing. In removing a deteriorated clapboard, care should be taken not to damage adjacent boards. All the surfaces of a new clapboard should be treated with wood preservative and primer before installation. Wooden shingles should also be protected with wood preservative, but stain, not paint, should be used, to follow traditional practice. Properly maintained shingles rarely need replacement; if replacement is ever necessary, the shingles' distinctive shape and size should be duplicated. Additional information on maintenance and repair of wood appears in the guidelines for wood.

Brick and stone walls should be monitored for signs of moisture damage or cracking. Heavily soiled masonry should be cleaned with low-pressure water washing and, if necessary, bristle brushes. Masonry walls should be protected by eliminating vegetation that can cause structural damage or hinder surface ventilation and drainage. Although masonry provides a relatively low-maintenance, long-lasting exterior surface, eventually all masonry mortar joints need repointing. Care must be taken to match the old mortar in color, texture, and strength. The guidelines for masonry present additional information on maintenance and repair of masonry.

Traditional stucco walls require maintenance similar to that indicated for masonry walls. If a stucco wall needs patching, it is important to match the original stucco in composition, texture, color, and strength. Frequently, stucco walls were originally painted; maintaining a sound paint film will help protect them from water damage.

## Exterior Walls and Trim: Guidelines

1. Retain and preserve the original shape, form, height, materials, and details of historic walls.
2. Retain and preserve all architectural features that are character-defining elements of exterior walls, such as bays, cornices, storefronts, arches, quoins, cornerboards, and brackets.
3. Retain and preserve historic wall materials whenever possible. If replacement is necessary, use new materials that match the historic materials in composition, size, shape, color, pattern, and texture. Consider substitute materials only if the original materials are not technically feasible.
4. Protect and maintain historic walls in appropriate ways:
    - Inspect walls regularly for signs of deterioration or moisture damage.
    - Keep all joinery adequately sealed to avoid moisture damage.
    - Maintain a sound paint film on all elements that were traditionally painted.
    - Eliminate any vegetation that may cause structural damage, or that may hinder ventilation and surface drainage, thus inviting damage from moisture, mildew, fungi, or insects.
    - Maintain gutters and downspouts to avoid moisture damage to walls.
5. If replacement of a wall element or detail is necessary, replace only the deteriorated element to match the original in size, scale, proportion, material, texture, and detail.
6. Locate new vents and mechanical connections through historic walls on non-character-defining walls or inconspicuously on side or rear walls where they will not be visible from the street.
7. It is not appropriate to apply paint or other coatings to unpainted wall material that was historically not coated.
8. It is not appropriate to introduce new wall features, such as vents, bays, and door or window openings, if they would diminish the original design of the wall or damage historic wall materials.
9. It is not appropriate to replace or cover wooden siding or trim with a substitute cladding material such as aluminum siding, vinyl siding, or brick veneer.
10. It is not appropriate to use spray-on vinyl coatings as a substitute for paint on wooden siding, trim or architectural details.




## Windows and Doors

Windows and doors by their proportion, shape, positioning, location, pattern, and size can contribute significantly to a building's historic character and are particularly indicative of stylistic periods. These openings in a building's exterior also provide opportunities for natural light, ventilation, and visual connections to the interior.

Windows in the historic district primarily consist of wooden double-hung sashes, vertical in proportion, with a variety of pane subdivisions. The number and the size of the lights, or panes, in a window are indicative of its architectural style. For example, most Victorian houses have tall and narrow windows, whereas windows in the Colonial Revival style usually have small multiple lights within a single sash. Operable wooden shutters are fairly common in the district.

Sidelights and fanlights with fixed panes of glass, sometimes beveled or stained, surround some of the more formal front entries in the district. Some Victorian homes feature a large picture window on the front elevation. Metal-frame casement windows are found on only a few later buildings.

Both solid paneled wooden exterior doors and combinations of wooden panels with fixed glazing are typical in the district. Many of the original front doors remain, and a number of them are stained and varnished rather than painted. Front entries with double front doors are found on several large residences.

## Maintenance and Repair

With routine maintenance and repair, original wooden windows and doors can be preserved. Windows become less weatherproof and energy efficient as the caulking and the glazing putty that seal the glass panes within the wooden sash dry and crack apart. Weatherstripping around a sash or a door can deteriorate over time and need replacement. Wood itself must be protected from moisture and ultraviolet light by paint or protective sealers.

Preserving original windows and doors is always more desirable and generally less expensive than replacing them. Frequently, repair or replacement of only the damaged portion of the frame, the sash, the sill, or the threshold will eliminate the problem. A number of wood consolidants on the market can restore a section of rotten or damaged wood. The guidelines for wood provide more information on wood repair.

If total replacement of a window or a door is necessary, a unit should be used that matches the original in dimension, configuration, material, and detail. Replacement units should never require alteration of the original door or window opening. If double glazing in a new unit is desired for energy efficiency, it is not appropriate to compromise the architectural character of the building by choosing snap-in muntins in place of true divided lights.

Historically, wooden blinds or shutters were both functional and decorative. If wooden replacement shutters are necessary, they should match the original shutters in dimension and be hinged so that they are operable.

Doors that were originally stained rather than painted are found throughout the district. Unless an originally stained door has been substantially patched, later coats of paint can be stripped off, and the wood can be restained, then sealed with a clear finish like marine varnish to restore the original appearance. If the patching is too severe, painting the door in a historically appropriate color is preferable.

Historically, wooden screen doors were typical in the district. New storm or replacement screen doors should be similar in appearance to the original screen doors: constructed of wood, sized to match the original door opening, and containing large panels of glass or screen so that the view of the exterior door is not obscured. Interior storm windows are encouraged as an alternative to exterior storm windows.

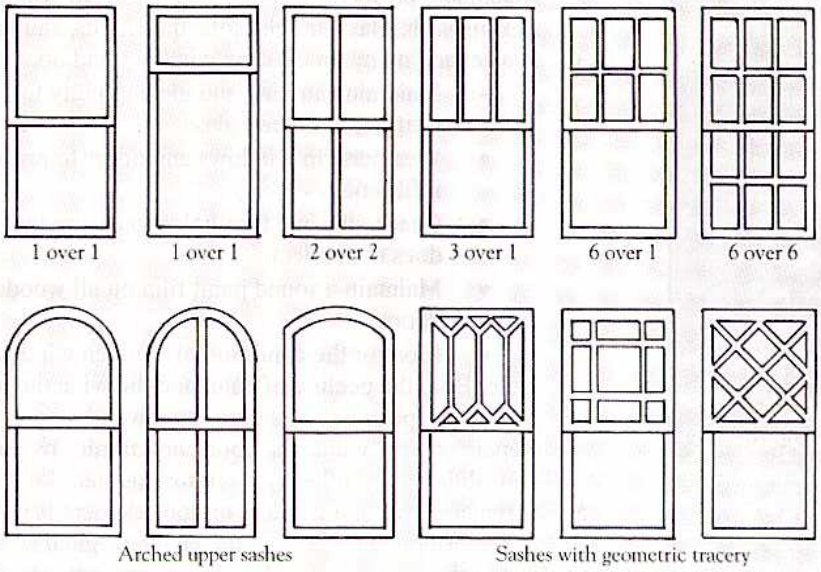
## Windows and Doors: Guidelines

1. Retain and preserve original windows and doors.
2. Retain and preserve openings and details of windows and doors, such as trim, sash, glass, lintels, sills, thresholds, shutters, and hardware.
3. Protect and maintain existing windows and doors in appropriate ways:
   - Maintain caulking and glazing putty to prevent air or water infiltration around glass.
   - Weatherstrip windows and doors to prevent moisture and air infiltration.
   - Check sills and thresholds to ensure that water runs off and does not collect.
   - Maintain a sound paint film on all wooden windows and doors.
   - Monitor the condition of wooden windows and doors.

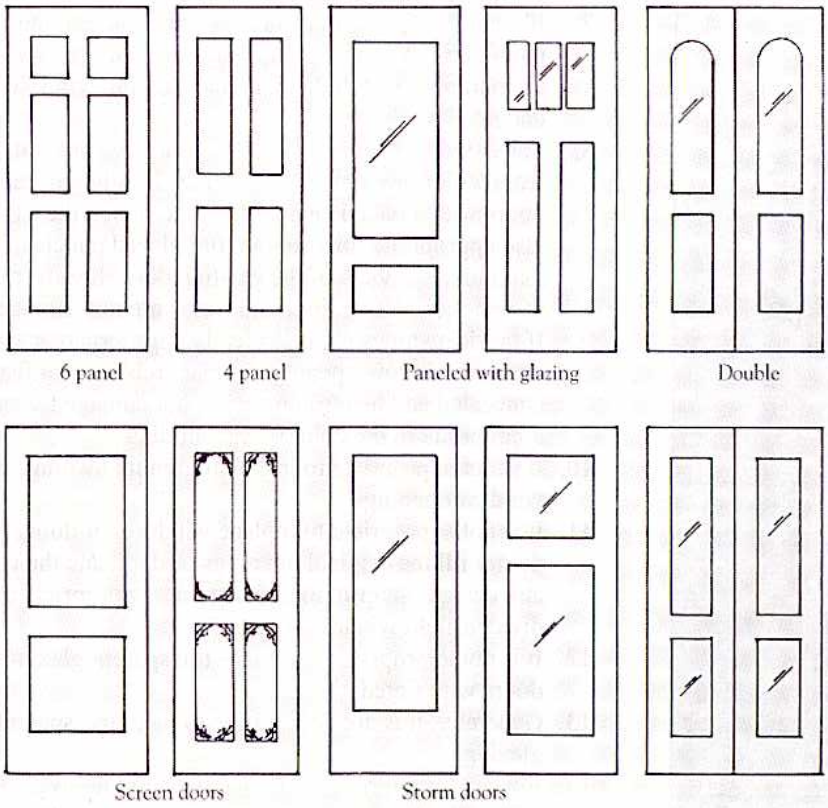
   Note: Both the peeling of paint and the widening of joints may create the false appearance of deteriorated wood.
4. Repair original windows, doors, and frames by patching, splicing, consolidating, or otherwise reinforcing deteriorated sections.
5. If replacement of a window or door element is necessary, replace only the deteriorated element to match the original in size, scale, proportion, pane or panel division, material, and detail.
6. Construct replacement shutters of wood, size them to window openings, and mount them so that they are operable. It is not appropriate to introduce window shutters where no evidence of earlier shutters exists.
7. If exterior storm windows are desired, select ones that are coated with paint or a baked-enamel finish in a color appropriate to the color of the building. Install them so that existing windows and frames are not damaged or obscured.
8. Select wooden storm or screen doors that are stained in a natural wood color or painted to match the building or the trim. Metal storm doors with a baked enamel finish to match the trim of the house are also appropriate. Incorporate full glazed panels in storm doors to maximize the view of the existing door. Install storm or screen doors so that the existing door and frame are not damaged or obscured.
9. If fabric awnings are historically appropriate, install them in porch, door, or window openings so that architectural features are not concealed and historic materials not damaged. Select colors appropriate to the color of the building.
10. It is not appropriate to install aluminum awnings over porch, door, or window openings.
11. It is not appropriate to replace windows or doors with stock items that do not fill the original openings or duplicate the unit in size, material, and design. Snap-in muntins are not appropriate replacements for true divided-light window panes.
12. It is not appropriate to replace transparent glazing in windows or doors with tinted glazing.
13. Generally, it is not appropriate to paint transparent or translucent glazing.
14. It is not appropriate to fill in existing window or door openings if it would diminish the historic character of the building. It is not appropriate to replace or cover glazing with plywood.

**continued on page 18**

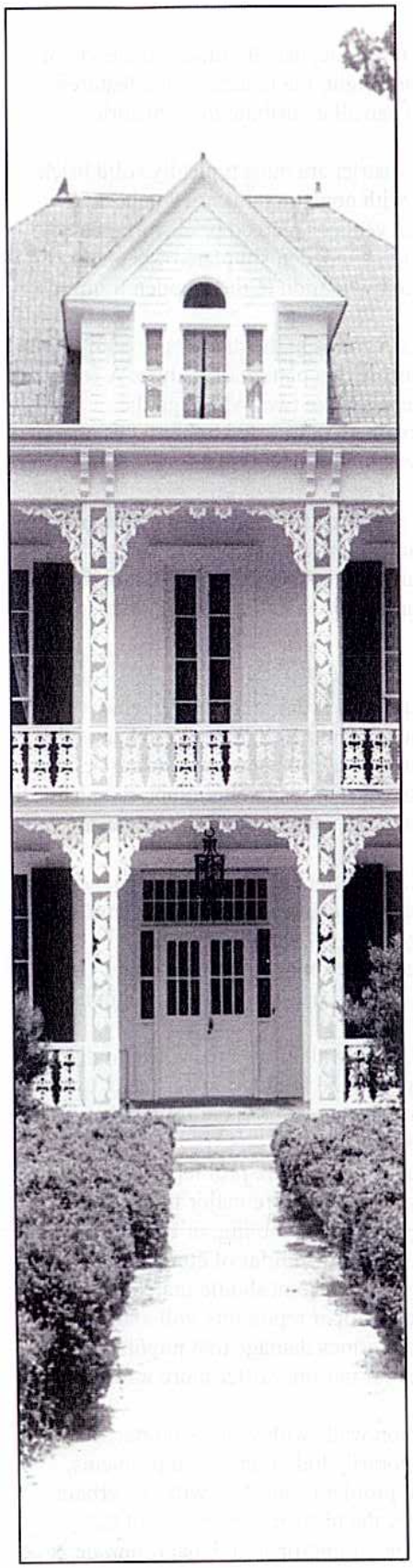
# Windows and Doors



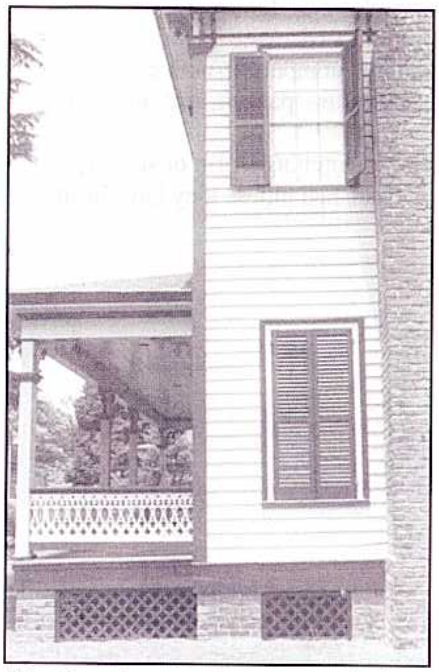

Windows in the district consist primarily of wooden double-hung sashes, vertical in proportion, with a variety of pane subdivisions.



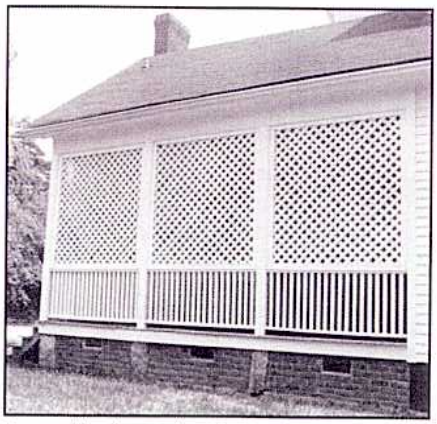

Both solid paneled wooden exterior doors and combinations of wooden panels with fixed glazing are typical in the district. New storm or screen doors should be similar in appearance to original screen doors and contain large panels of glass or screen.



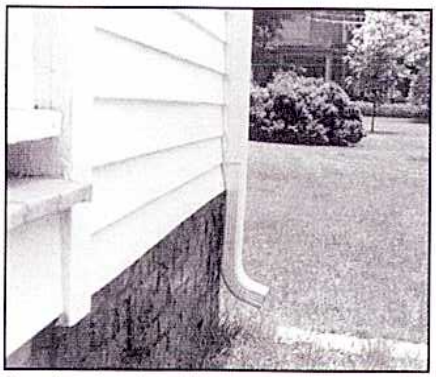
15. It is not appropriate to introduce new windows or doors if they would diminish the original design of the building or damage historic materials and features. Keep new windows and doors compatible with existing units in proportion, shape, positioning, location, pattern, size, materials, and details.
16. It is not appropriate to paint front doors or matching storm or screen doors that were historically stained or varnished unless they have been substantially patched.



This relocated structure sits upon a new brick pier foundation with lattice infill panels.



Recessed brick panels with metal vents now fill in the spaces between the original stone piers of this foundation.



The sloped grade and the turned downspout direct water away from the foundation.

## Foundations

The foundation ties the historic building to its site, usually raising the body of the structure well above ground level. The height, the materials, the features, and the details of a building's foundation can all contribute to its historic character.

Foundation walls in the historic district are most typically solid brick perimeter walls or spaced masonry piers with nonstructural brick panels between the piers. Often, decorative metal vents or pierced brickwork provide ventilation through the foundation. Usually, a wooden sill plate rests on the perimeter wall or the piers, connecting the foundation to the wooden framing system for the house.

The foundations of many brick structures in the district are differentiated from the walls above by a change in pattern or texture. A water table, a distinctive band of bricks, may separate the two. Although the majority of brick foundations remain unpainted, quite a few other types of foundations have been painted over the years. Substantial plantings screen many foundations from view.

Exposed brick pier foundations support some porches and entrances. Wooden lattice panels often are used as infill between the piers.

Stone foundations, typically granite, and an occasional stucco foundation are found on a limited number of houses in the historic district.

## Maintenance and Repair

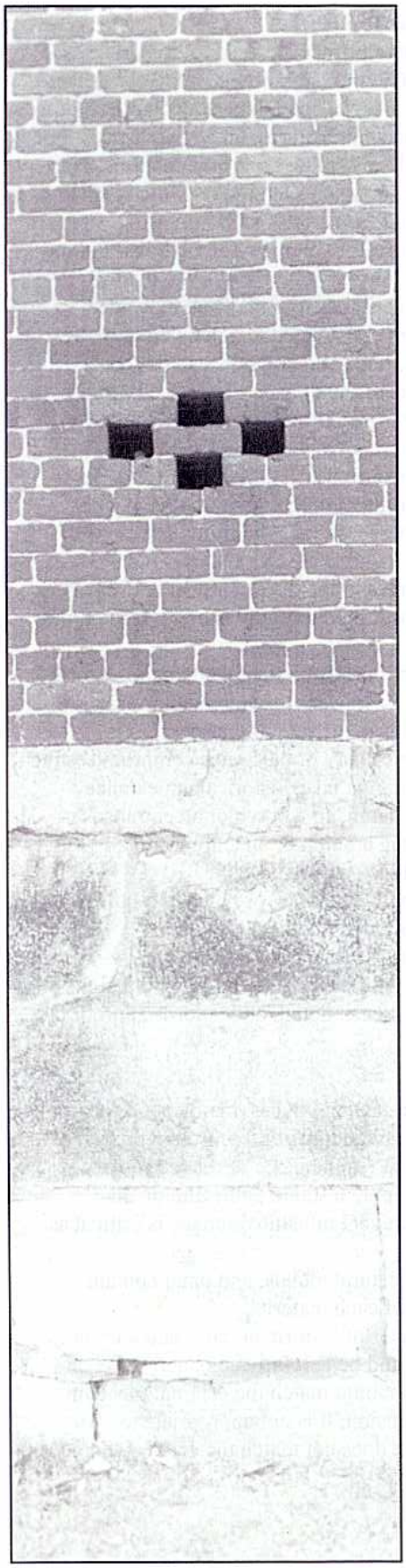
Moisture due to improper drainage or inadequate ventilation is the most typical cause of deterioration in foundations. Another common problem is the cracking of a foundation along mortar joints due to the gradual settling or shifting of a structure over time. Tree roots or major site alterations can also damage foundations. Routine inspections of the foundation perimeter can identify such problems at an early stage.

Improper drainage results from insufficient sloping of the ground away from the foundation, allowing water to collect and gradually to erode the mortar joints in the foundation wall. Vegetation growing against the foundation wall can lead to premature deterioration of the mortar joints because it holds moisture against the foundation and its roots may begin to push into or under the foundation.

Vents and openings in the foundation wall allow natural ventilation of moist air that might otherwise be trapped in the foundation perimeter or the crawl space and cause additional moisture damage to both the foundation itself and the structural system that it supports.

In addition to eliminating the cause of moisture problems, repairing deteriorated mortar joints is essential in preventing more major foundation problems. Such repair involves removal of loose, crumbling, or cracked mortar and repointing of the mortar joint with new mortar of comparable strength, color, and composition. The new mortar joint should match the original joint in appearance and dimension. Proper repointing will extend the life of a foundation wall and prevent more serious damage that might require replacement of brickwork. The guidelines for masonry offer more information on this process.

Often, covering historic foundation walls with various mortar, waterproofing, or paint coatings can temporarily hide foundation problems, but generally will not eliminate the initial problem and often will exacerbate it. Moreover, such coatings usually destroy the historic appearance of the foundation. Consequently, they are considered improper and inappropriate in the historic district.



### Foundations: Guidelines

1. Retain and preserve the original form, pattern, color, and texture of historic foundations.
2. Retain and preserve all architectural features that are character-defining elements of the foundation, such as decorative vents and grilles, access doors, lattice panels, water tables, and steps.
3. Retain and preserve historic foundation materials whenever possible. If repair or replacement is necessary, use new materials that match the historic materials in composition, size, shape, color, pattern, and texture. Consider substitute materials only if the original materials are not technically feasible.
4. Protect and maintain a historic foundation in appropriate ways:
    - Provide adequate ventilation of the crawl space to prevent moisture problems.
    - Provide adequate drainage of surface water by grading the site away from the foundation.
    - If necessary, install drains around the foundation to eliminate surface-water problems.
    - Maintain foundation plantings so that they do not hinder adequate ventilation and drainage of the foundation.
    - Eliminate any vegetation that may cause structural damage to the foundation.
    - Follow the guidelines for maintenance of masonry where applicable.
5. Locate new utility and mechanical connections through foundations on non-character-defining foundation walls or inconspicuously on side or rear walls where they will not be visible from the street.
6. It is not appropriate to apply paint or other coatings to unpainted foundation material that was historically not coated.
7. Paint previously painted foundations in dark colors that best reflect the foundation material.
8. Removal of paint from painted masonry foundations is not recommended unless the brick is of high quality and was intended to be exposed. Undertake removal only with a chemical paint remover specifically formulated for masonry. Always test the remover on an inconspicuous area or a test panel first.
9. It is not appropriate to introduce new foundation features, such as vents or access doors, if they would diminish the original design of the foundation or damage historic foundation features or materials.
10. If spans between masonry piers are to be filled in, recess and detail the panels so that the original piers are still prominent.

This front porch wraps around the entire side elevation.

Decorative wooden brackets and sawnwork balusters add stylistic detail to this Italianate porch.

This rear porch was sensitively enclosed with lattice panels and glass to retain its porch character.

## Porches, Entrances, and Balconies

Porches, entrances, and balconies are often primary features of historic buildings and contribute significantly to their overall architectural character. The various functional components of porches and entrances, including steps, balustrades, columns, pilasters, doors, and entablatures, all add stylistic embellishment to historic buildings while providing scale and detail. Because of their prominence, front porches were sometimes altered over the years to reflect a more current architectural style than the original house.

Front porches are the dominant feature on many of the houses in the historic district. They generally are one story in height, often run the full width of the house, and sometimes wrap around from the front to a side elevation. Most porches in the district are constructed and detailed in wood, although some decorative iron balusters, rails, and columns can be seen as well. Painted tongue-and-groove floorboards and beaded-board ceilings are most typical, although floors of ceramic tile or stone and ceilings of plaster can also be found. Balconies, sleeping porches, side porches, and back porches are also fairly common in the historic district. Many side and rear porches are screened and occasionally further enclosed with lattice panels. Two-story porticoes and double-tiered porches grace the front elevations of a few of the larger homes.

Typical porch-paint color schemes in the district repeat house trim colors on columns, balusters, and soffits. A medium gray is often used on the floor, a light blue-green on the ceiling.

Because the enclosure of a front porch or balcony alters the historic character of a building so significantly, it is never considered appropriate in the district. For parallel reasons the enclosure of side or rear porches is discouraged. Similarly, elimination or enclosure of balconies compromises the architectural integrity of buildings. Creating a false historical appearance through the application of elements and details to a porch or an entrance is also considered inappropriate, as is adding a porch or an entrance to a prominent elevation where none existed historically.

Reconstruction of a missing porch, entrance, or balcony requires accurate evidence of the original configuration and detail. If such documentation does not exist or if reconstruction is not desired, a contemporary design that is compatible with the historic building in height, proportion, roof shape, material, texture, scale, detail, and color is appropriate.

## Maintenance and Repair

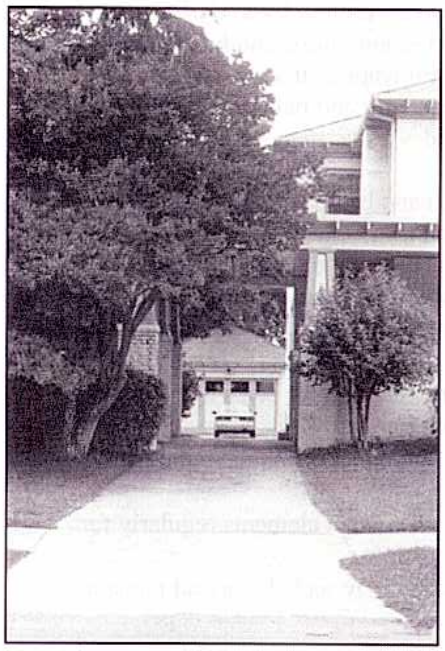
Because of the exposed nature of porches and entrances, maintenance is a continuing concern. Ensuring their water-shedding ability through proper sloping of all floors and steps and through maintenance of related roofing, gutters, and downspouts is essential. Keeping a sound paint film on all wooden porch and balcony surfaces to prevent moisture damage is critical as well.

The guidelines for wood, architectural metals, and paint contain information for maintenance and repair of each material.

Given the distinguishing character of historic porches and entrances, replacement of any element or detail should be carefully considered. When replacement is necessary, the new piece should match the original piece in material, shape, texture, detail, and dimension. It is not appropriate to substitute a contemporary stock item that does not match the original element, or to eliminate a detail rather than repair or replace it.

## Porches, Entrances, and Balconies: Guidelines

1. Retain and preserve historic porches, entrances, and balconies.
2. Retain and preserve all architectural features that are character-defining elements of porches, entrances, and balconies, including piers, columns, pilasters, balustrades, rails, steps, brackets, soffits, and trim.
3. Retain and preserve historic porch and balcony material, such as flooring, ceiling board, lattice, and trim, whenever possible. If replacement is necessary, use new material that matches the historic material in composition, dimension, shape, color, pattern, and texture.
4. Protect and maintain porches, entrances, and balconies in appropriate ways:
    - Maintain the slope of the floor and the steps to ensure that water does not collect but runs off.
    - Maintain a sound paint film on all elements that were traditionally painted.
    - Check the condition of all wooden elements regularly for signs of water damage or rot.
    - Keep wooden joinery adequately sealed to avoid moisture damage.
    - Inspect masonry piers or foundation walls regularly for signs of deterioration or moisture damage.
5. Repair wooden elements by patching, splicing, consolidating, or otherwise reinforcing deteriorated sections.
6. If replacement of a porch element or detail is necessary, replace only the deteriorated element to match the original in size, scale, proportion, material, texture, and detail.
7. If a historic porch, entrance, or balcony is completely missing, replace it with either a reconstruction based on accurate documentation or a new design compatible with the historic character of the building in height, proportion, roof shape, material, texture, scale, detail, and color.
8. When introducing reversible features to assist people with disabilities, take care that the original design of the porch or the entrance is not diminished and historic materials or features are not damaged.
9. It is not appropriate to enclose front porches or balconies.
10. Enclosure of side or rear porches and balconies is discouraged. If enclosure of a side or rear porch is required for a new use, design the enclosure so that the historic character and features of the porch are preserved.
11. It is not appropriate to add elements or details to a porch or an entrance in an attempt to create a false historical appearance.
12. It is not appropriate to replace wooden porch floors or steps with concrete or brick ones.
13. It is not appropriate to add new porches, entrances, or balconies to primary elevations where none previously existed.



Materials and architectural detailing tie this garage to the main house.

A carefully restored one-bay garage awaits painting.

A newly built two-bay garage is compatible with district garages in form, materials, and detailing.

## Garages and Outbuildings

A number of original garages and smaller outbuildings, and even a few carriage houses, survive in the historic district. Many echo the materials, the details, and the roof form of the main house on the site and contribute to the architectural character of the district. Through their siting and relationship to the houses, the streets, and the alleys, the accessory buildings contribute to the historic character of the district as well.

Early garages were typically single-bay structures located in the rear yard at the end of the driveway. Early storage buildings and sheds were usually small frame structures sited toward the back of the rear yard and were generally not visible from the street.

### Garages and Outbuildings: Guidelines

1. Retain and preserve historic garages and outbuildings.
2. Retain and preserve all architectural features that are character-defining elements of garages and outbuildings, including foundations, steps, roof form, windows, doors, architectural trim, and lattices.
3. Retain and preserve historic garage and outbuilding materials, such as siding, masonry, roofing materials, and wooden trim. If replacement is necessary, use new materials that match the historic materials in composition, dimension, shape, color, pattern, and texture. Consider substitute materials only if the original materials are not technically feasible.
4. Protect and maintain garages and outbuildings in appropriate ways:
   - Check the condition of all wooden elements regularly for signs of water damage or rot.
   - Keep wooden joinery adequately sealed to avoid moisture damage.
   - Maintain a sound paint film on all elements that were traditionally painted.
   - Inspect masonry piers or foundation walls regularly for signs of deterioration or moisture damage.
   - Follow the guidelines for maintenance of masonry, wood, or architectural metals where appropriate.
5. If replacement of an element or a detail is necessary, replace only the deteriorated item to match the original in size, scale, proportion, material, texture, and detail.
6. If a historic garage or outbuilding is completely missing, replace it with either a reconstruction based on accurate documentation or a new design compatible with the historic character of the main building or historic outbuildings in the district.
7. Keep the proportion and the height of new garages and outbuildings compatible with the proportion and the height of historic garages and outbuildings in the district.
8. In constructing new garages and outbuildings, use traditional roof forms, materials, and details compatible with the main building or historic outbuildings in the district. Prefabricated storage buildings are appropriate provided they have a shingle roof and are made of wood painted in a color that complements the house. Storage buildings constructed of metal, vinyl or plastic are not appropriate.
9. Locate new garages and outbuildings in rear yards and in traditional relationship to the main building.
10. It is not appropriate to locate a garage or an outbuilding in front of the main building unless such a location is historically accurate for a specific site.

The portico and the exterior walls constructed of granite in a random ashlar pattern distinguish this house.

## Masonry

Brick, stone, tile, terra-cotta, concrete, stucco, and mortar are all typical masonry materials found on the exterior of historic buildings. The texture, the scale, the color, the bonding pattern, the joints, and the detail of masonry surfaces can all contribute significantly to the overall character of the historic building. Masonry features such as roofing tiles, chimneys, arches, quoins, lintels, sills, cornices, and pediments further define a building's historic character.

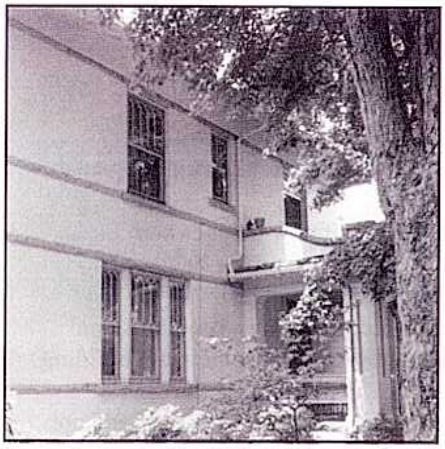
Brick is by far the most common masonry material found in the historic district. Granite and stucco are found on exterior walls and foundations. Roofs clad in slate or clay tiles also contribute to the architectural character of the district.

Decorative brick veneer walls and clay tile roofing embellish this residence.

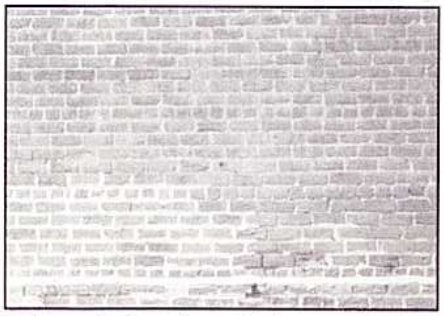
## Maintenance and Repair

Masonry surfaces are relatively long-lasting and require little maintenance. Moisture is the most common cause of deterioration in masonry. If water can enter the wall, the roof, or the foundation through loose masonry joints or cracks, it will cause additional damage as it works its way through the structure. Typically, mortar joints slowly deteriorate over a period of years because of exposure to the elements. The deterioration allows moisture to penetrate brick walls or foundations. Consequently, the life of a brick or stone wall depends on proper maintenance of its mortar joints. The process of replacing deteriorated mortar joints with new mortar is called repointing. All loose and deteriorated mortar is carefully raked out of the joint by hand, and new mortar is inserted. To maintain the historic character and the structural integrity of the wall, the original mortar should be matched in composition, color, texture, and strength. The dimension and the profile of the original mortar joint should also be duplicated.

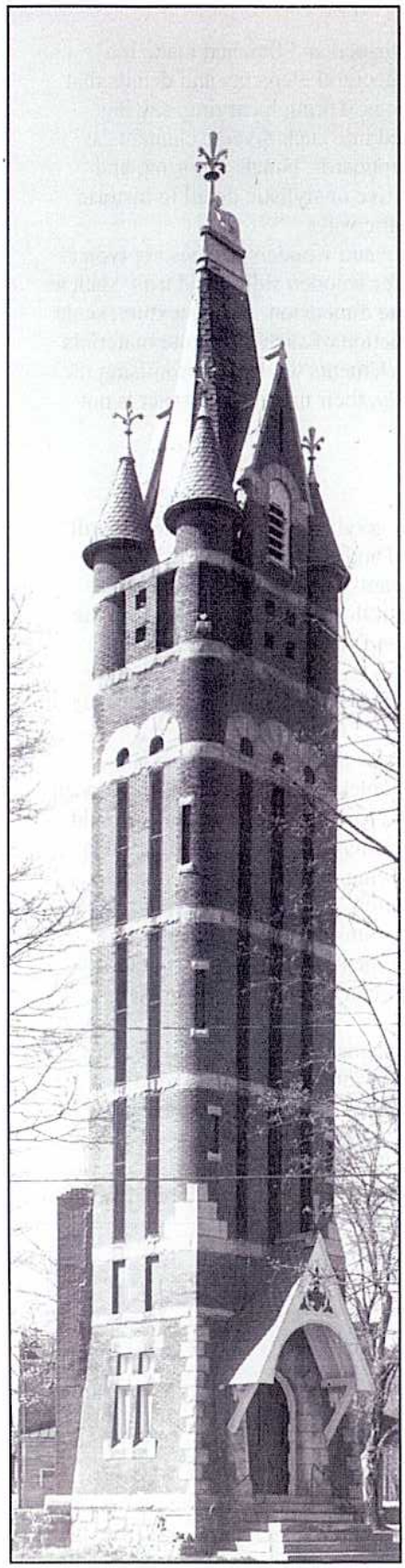
Heavy soiling or vegetation that allows moisture to remain on a masonry surface contributes to the deterioration of masonry elements. If cleaning is necessary, the gentlest method possible should be used. Periodic cleaning with simple techniques such as steam cleaning or low-pressure water washing with or without a mild detergent, complemented by scrubbing the surface with a natural bristle brush where needed, is generally all that is necessary. If these techniques are not successful, chemical masonry cleaners may be indicated. Chemical cleaners should always be tested on an inconspicuous area well in advance to determine if they cause any discoloration or damage to the masonry. High-pressure cleaning techniques such as sandblasting and waterblasting, because of their abrasive nature, permanently damage the surface of historic masonry and accelerate its deterioration. Consequently, such techniques are not appropriate in the historic district.



Granite belting accentuates the stucco walls of this home in the Spanish Mission style.



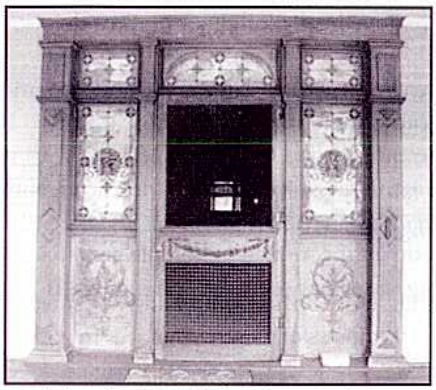
Failure to duplicate the original mortar joints in width and color makes this repointing noticeable.



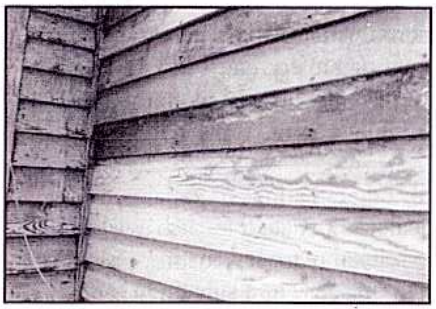
## Masonry: Guidelines

1. Retain and preserve original masonry walls, foundations, and roofs.
2. Retain and preserve all masonry construction features that are character-defining elements of historic buildings, including chimneys, arches, quoins, cornices, and pediments.
3. Retain and preserve historic masonry materials whenever possible. If replacement is necessary, use new materials that match the historic materials in composition, size, shape, color, pattern, and texture. Consider substitute materials only if the original materials are not technically feasible.
4. Protect and maintain historic masonry in appropriate ways:
    - Monitor masonry for cracks and signs of moisture damage.
    - Ensure that water does not collect at the base of a masonry foundation or chimney.
    - Clean masonry only if necessary to remove heavy soiling or prevent deterioration.
    - Eliminate any vegetation that may cause structural damage or hinder ventilation and surface drainage of a masonry element.
    - Use the gentlest means possible to clean historic masonry. Cleaning with a low-pressure (500 pounds per square inch or less) water wash, using detergents and natural bristle brushes, is preferred over harsher methods.
    - Test any proposed cleaning method on an inconspicuous sample area first.
5. If cracks in mortar joints, crumbling mortar, loose bricks, damp walls, or damaged plaster indicate deterioration, repoint mortar joints of masonry surfaces in appropriate ways:
    - Carefully remove deteriorated mortar by hand-raking the joints. Using electric saws or hammers can damage the masonry.
    - Duplicate the strength, the composition, the texture, and the color of the original mortar. Replacing a softer mortar with one high in portland-cement content can cause serious damage to existing masonry.
    - Duplicate the width and the joint profile of the original mortar joints.
6. It is not appropriate to apply paint or other coatings to unpainted masonry elements that were historically not coated.
7. It is not appropriate to apply nontraditional masonry coatings such as waterproofing and water repellents to masonry as a substitute for repointing or repair. Use such coatings only if masonry repairs have failed to eliminate water-penetration problems.
8. Paint previously painted masonry elements in dark colors that best reflect the color of the masonry material.
9. Removal of paint from masonry surfaces is not recommended unless the brick is of high quality and was intended to be exposed. Undertake removal only with a chemical paint remover specifically formulated for masonry. Always test the remover on an inconspicuous area or a test panel first.
10. It is not appropriate to use high-pressure cleaning methods such as sandblasting and waterblasting on historic masonry surfaces. Such cleaning techniques permanently damage the masonry surface and accelerate deterioration.

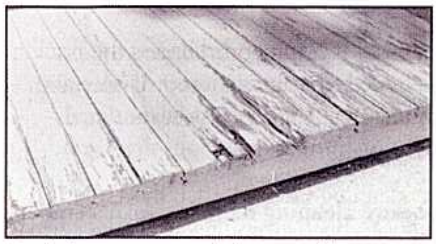
Wooden spindles create a delicate valance across the porch entrance of this Queen Anne house.



Applied garland reliefs below the stained glass sidelights and across the screen door distinguish this elaborate wood entry.



Deteriorated clapboards have been selectively replaced with new siding to match the original before repainting.



Porch flooring is particularly susceptible to water damage along its exposed grain edge.

## Wood

The variety of ways in which wood can be shaped and finished make it a typical material for creating a range of architectural elements and details that contribute to the character of historic buildings. Through carving, sawing, planing, and splitting, wood can be fashioned into such diverse elements as columns, balustrades, cornices, shingles, clapboards, panels, flooring, and brackets. Wooden features often add decorative or stylistic detail to historic structures while functioning in quite pragmatic ways.

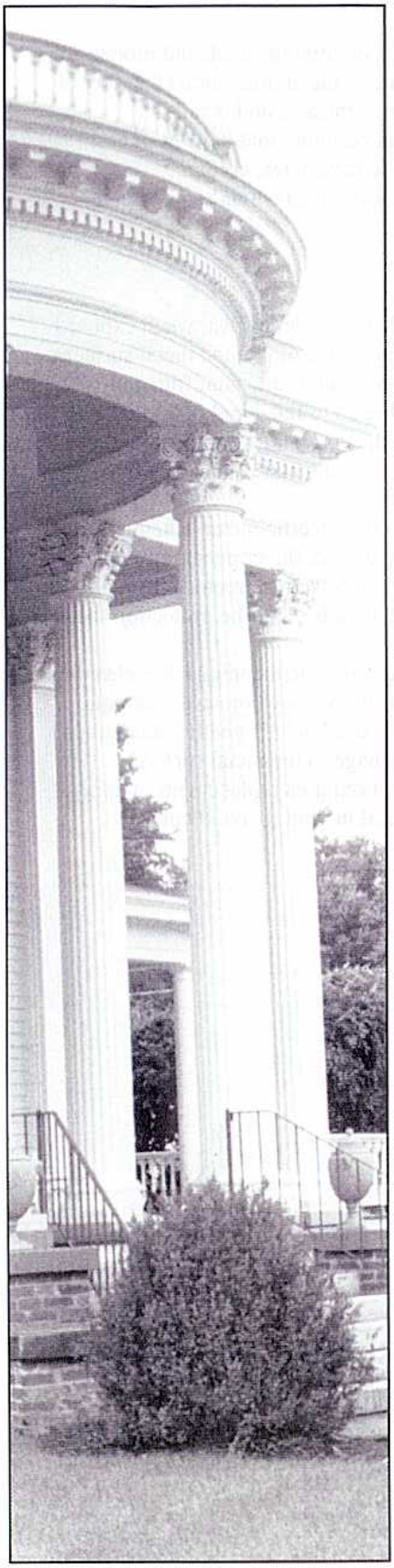
Frame houses with clapboard siding and wooden porches are typical of the historic district. Substitute materials for wooden siding and trim, such as vinyl and aluminum, do not provide the same dimension, shape, texture, scale, and detail as the wooden fabric. The introduction of such substitute materials often results in damage to original wooden elements while compromising the character of a historic building. Consequently, their use in the district is not appropriate.

## Maintenance and Repair

Wood is a traditional building material with good insulating qualities. It will last indefinitely if it is kept properly caulked and painted. Because wood expands with the introduction of moisture, caulks and flexible sealants are typically used to seal wood joints and prevent the entry of water beneath the wood surface. Paints and coatings on the wood surface protect it from deterioration due to ultraviolet light as well as moisture. The guidelines for paint provide additional information on the preparation and the maintenance of painted surfaces.

Stains or evidence of mildew indicates that a wood surface is remaining damp, inviting insect and fungal attacks as well as wet rot. Wooden elements should be sloped to shed water, and roof and gutter systems should provide additional protection to the surface. Chemical treatment of wooden members either during manufacture or following installation can enhance wood's ability to resist rot and insect infestation. Some chemical treatments result in an initial resistance to surface paint films, requiring a weathering period of a few months before painting. Chemical treatment is particularly advantageous if the wooden element is to remain unpainted or is in direct contact with the ground.

The repair of deteriorated wooden elements or details may require partial replacement of the original wood or the introduction of a wood consolidant to stabilize the deteriorated section and prevent further decay. Wood consolidants are particularly appropriate when they prevent the removal of decorative details and trim that cannot easily be replicated or when replacement of the deteriorated section of a larger element would be difficult to achieve in place.

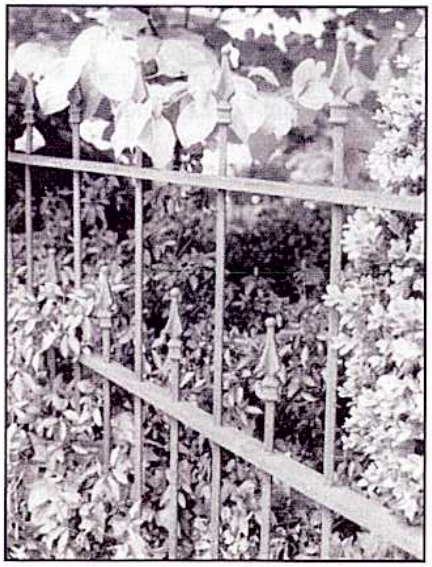


## Wood: Guidelines

1. Retain and preserve original wooden siding, trim, and details as well as their paints, colors, and finishes.
2. Retain and preserve all wooden features that are character-defining elements of a historic building, such as siding, shingles, brackets, cornices, balustrades, columns, pediments, and architraves.
3. Retain and preserve historic wooden fabric whenever possible. If replacement is necessary, use new wood that matches the original in dimension, shape, detail, and texture.
4. Protect and maintain wood surfaces and elements in appropriate ways:
    - Inspect wood surfaces and features regularly for signs of damage from moisture, insects, fungi, or mildew.
    - Monitor the condition of wood surfaces and features. Note: Both the peeling of paint and the widening of wood joints may create the false appearance of deteriorated wood.
    - Keep wooden joinery adequately sealed to avoid water penetration.
    - Maintain a slope on horizontal wood surfaces, such as porch flooring or window sills, to ensure that water does not collect but runs off.
    - Maintain roofs, gutters, and downspouts to protect wood surfaces and features from water damage.
    - Prime all exposed wood surfaces before painting.
    - Maintain a sound paint film or other coating on wood to prevent damage from ultraviolet light and moisture.
5. Repair original wooden elements and details by patching, splicing, consolidating, or otherwise reinforcing deteriorated sections.
6. If replacement of a wooden element or detail is necessary, replace only the deteriorated element to match the original in size, scale, proportion, material, and detail.
7. It is not appropriate to clean wood surfaces with high-pressure methods, such as sandblasting and waterblasting.
8. It is not appropriate to overexpose wood surfaces to caustic chemical strippers that will raise the grain of the wood and roughen the surface texture.
9. It is not appropriate to replace wooden siding, trim, or window sash with contemporary substitute materials such as vinyl or aluminum.
10. It is not appropriate to cover existing wooden siding with contemporary substitute materials such as synthetic or metal siding.
11. It is not appropriate to use spray-on vinyl coatings as a substitute for paint on wooden siding, trim or architectural details.
12. If possible, remove synthetic or metal siding that covers original wooden siding, and repair the original material as necessary. Remove later siding carefully so that the wood is not damaged.

Cast-iron columns and balustrades embellish a few porches in the district.

Failure to maintain a sound paint film on this pressed-metal shingle roof has led to deterioration of the exposed metal.



The chalky film of rust on this iron fence must be completely removed before repainting.

## Architectural Metals

Cast iron, wrought iron, copper, tin, sheet metal, aluminum, steel, and bronze are all traditional architectural metals that contribute to the architectural character of historic buildings through their distinctive forms, finishes, and details. Throughout the district, distinctive elements can be found that have been cast, wrought, pressed, or rolled of metal, including fences, gates, columns, balustrades, hardware, gutters, downspouts, pressed-metal shingle roofs, and standing-seam roofs.

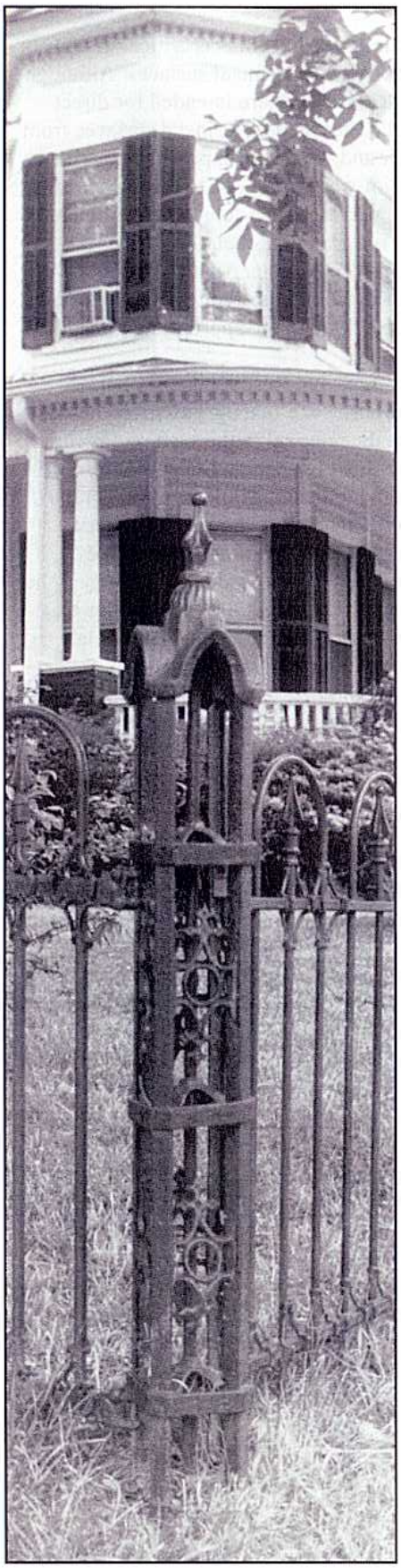
## Maintenance and Repair

A protective paint film is essential for metals that corrode, or rust, when exposed to air and moisture. Consequently, routine maintenance of painted metal surfaces includes prompt attention to any signs of deterioration of the paint film and subsequent corrosion. If the metal surface has begun to flake and rust, it must be thoroughly cleaned before repainting. Because the corrosion continues as long as the metal is exposed to air, immediate painting with a metal primer after cleaning is essential to prevent deterioration of the metal.

Cleaning techniques vary according to the specific metal. Chemical solutions are typically used on soft metals such as lead, tin, copper, zinc, and terneplate. Copper and bronze surfaces develop a protective greenish patina over time, and it is generally desirable to maintain that patina and the protection that it provides.

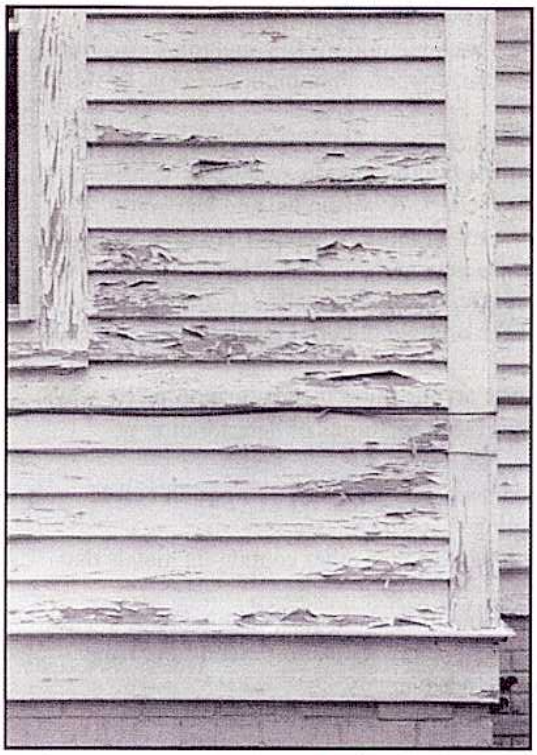
Wire brushing and handscraping are appropriate techniques for cleaning hard metals, such as steel and cast or wrought iron. A more abrasive technique, such as low-pressure dry-grit blasting, should be used only if gentler techniques are unsuccessful and if a test area reveals no damage to the metal surface.

If repair of a deteriorated metal element requires replacement of a metal section, it is important to match the original metal in kind to avoid corrosive galvanic reactions where the metals join.



## Architectural Metals: Guidelines

1. Retain and preserve original architectural metals, including cast iron, wrought iron, steel, pressed tin, copper, aluminum, and zinc, as well as their finishes and colors.
2. Retain and preserve architectural metal features that are character-defining elements of a historic building or site, including fences, gates, cornices, rails, roofs, gutters, downspouts, and hardware.
3. Retain and preserve historic metal fabric whenever possible. If replacement is necessary, use new metal that matches the original in composition, dimension, shape, detail, and texture. Consider substitute material only if the original material is not technically feasible.
4. Protect and maintain historic architectural metals in appropriate ways:
    - Monitor metal for cracks and signs of deterioration or corrosion.
    - Clean metal when necessary to remove corrosion before repainting or coating.
    - Maintain a sound paint film or other coating on metals that corrode.
5. Use the gentlest means possible to clean historic architectural metals, including appropriate chemical solutions for soft metals and wire brushing or handscraping for hard metals.
6. It is not appropriate to clean soft metals, such as lead, tin, copper, zinc, and terneplate, using a high-pressure technique like sandblasting. If wire brushing and handscraping prove ineffective in cleaning hard metals, such as steel, cast iron, and wrought iron, use low-pressure dry-grit blasting if it will not damage the metal surface.
7. Repair original architectural metal elements and details by patching, splicing, consolidating, or otherwise reinforcing deteriorated sections.
8. If replacement of an architectural metal element or detail is necessary, replace only the deteriorated element to match the original in size, scale, proportion, material, and detail.
9. Paint previously painted metals in colors appropriate to the colors of the historic building or site and the historic district.



Peeling paint must be scraped down to the first sound paint layer, and any exposed wood primed, before repainting.

Electric heat plates must be used with extreme care and only if gentler means of paint removal prove unsuccessful.

## Paint

Proper preparation and application of paint films is critical in preserving most historic exterior wood and metal surfaces. Although copper, bronze, and stainless steel surfaces are intended for direct exposure to the elements, paint protects all other metal surfaces from corrosion due to exposure to air and water. Also, paint helps protect wood surfaces from the effects of weathering due to moisture and ultraviolet light. Consequently, maintaining a sound paint film on most metal and wood surfaces is essential to their long-term preservation. In addition to its protective role, paint provides an opportunity to reinforce a historic building's architectural style and accentuate its significant features through the appropriate selection of paint color.

Maintaining wood surfaces that were previously painted requires routine cleaning of the surface. Often the perceived need to repaint may be eliminated with the removal of the surface dirt film through conventional washing. However, repainting is called for if the paint film itself is deteriorated or damaged. Proper preparation includes removal of all loose or detached paint down to the first sound paint layer. It is unnecessary and undesirable to remove additional sound paint layers to expose bare wood, particularly if the wood will remain uncoated for any length of time. It is always best to remove loose paint layers with the gentlest methods possible. Handscraping and handsanding are often all that is needed. Destructive methods such as sandblasting or waterblasting and the use of propane or butane torches are never appropriate for historic wood surfaces because of the permanent damage that they will cause to the wood surface itself. Electric heat plates, hot air guns, and chemical paint strippers are appropriate only if gentler techniques have failed.

Before it is repainted, any exposed wood should always be primed with a compatible primer coating. If a surface is damp or soiled, the new paint film will not adhere correctly, and the wet surface may take up to two weeks to dry out completely. Once the surface is clean and dry, the application of a compatible paint coating will result in continued protection of the wood surface.

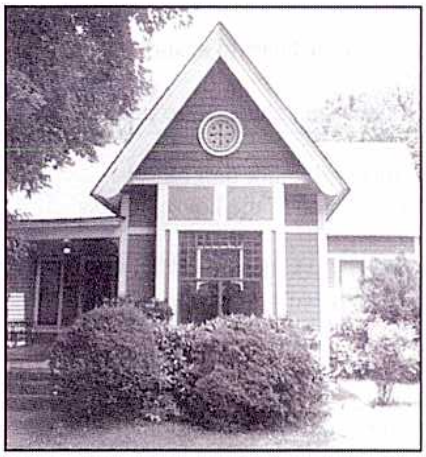
Painted metal surfaces require similar inspection and routine cleaning before repainting. However, for metals, it is critical that all corrosion be removed and a primer coat be applied immediately to protect the surface from additional corrosion. If cleaning loose paint and corrosion from hard metals such as cast iron, wrought iron, and steel by handscraping and wire brushing is unsuccessful, low-pressure grit blasting may be necessary. It is always best to test such techniques in an unobtrusive area first to determine if there will be any damage to the metal surface.

Although painting of unpainted masonry surfaces is not recommended, repainting of previously painted masonry and stucco using compatible paint coatings after proper cleaning and preparation is recommended. Preparation procedures are the same as those for wood.

## Paint: Guidelines

1. Protect original building material that was painted by maintaining a sound paint film.
2. Maintain previously painted surfaces in appropriate ways:
    - Inspect painted surfaces to determine if repainting is necessary or if cleaning the surfaces will suffice.
    - Use the gentlest techniques possible, such as handscraping and handsanding with wood or brick, and wire brushing and handsanding with metals, to remove loose paint layers down to a sound paint layer. Employ electric heat guns, heat plates, and chemical paint strippers only when gentler methods are not successful and more thorough removal is necessary, and use them with caution.
    - Follow proper surface preparation, applying compatible paint-coating systems, including priming all exposed wooden surfaces.
    - Apply new paint only to clean, dry surfaces to ensure that it will properly bond.
3. It is not appropriate to paint unpainted brick and stone, or to paint copper and bronze.
4. Coat replacement gutters and downspouts with paint or a baked-enamel finish in a color appropriate to the color of the house, unless they are made of copper.
5. Coat exterior storm windows with paint or a baked-enamel finish in a color appropriate to the color of the house, usually the same color as the window sash or trim.
6. It is not appropriate to apply paint or other coatings to unpainted wall material that was historically not coated.
7. It is not appropriate to apply paint or other coatings to unpainted foundations that were historically not coated.
8. It is not appropriate to use spray-on vinyl coatings as a substitute for paint.
9. Select paint colors that are appropriate to the historic building and district.

The yellow body color accented by white trim and sash and dark shutters and doors is an appropriate color scheme for this Federal-style law office.



Changes in these exterior walls from clapboards to shingles to trim are appropriately highlighted by variations in color.

The complex color treatment of the ornate details further embellishes this Queen Anne house.

## Exterior Color

The variety of architectural styles in the district provides a diversity of color palettes and treatments. For example, Greek Revival houses, whether brick, wood, or stone, were typically painted white and their shutters dark green or black; the Italianate and Gothic Revival styles were known for their palettes of neutral tints, such as tans, grays, and buffs, and sometimes darker shades as well. By contrast, the various materials and embellishments of Queen Anne's style houses were highlighted by multicolor paint schemes in deep rich hues of greens, reds, and browns. Neo-Classical Revival homes returned to the whites and off-whites of their precedents, whereas the soft body colors of Colonial Revival houses were usually trimmed with white or cream. Bungalows often combined exterior materials such as shingles, stucco, and brick. Usually the brick was unpainted, the shingles were stained, and the stucco was painted a light neutral or buff. Any trim or wood introduced was usually painted white, gray, or a light neutral.

Exterior color in the district reflects the color of both natural materials, such as brick, granite, and slate, and painted materials, such as wood and metal. Even the colors of historic roofs contribute to the diverse district palette. Slate and tile roofs reflect the color of their respective materials, whereas pressed-metal shingles and standing seam roofs are usually painted in deep colors such as rich reddish brown, dark green, gray, or even black. Because they are usually replacement roofing for materials such as metal or slate that were traditionally dark in color, asphalt composition shingles in dark colors are most appropriate in the historic district. Replacement gutters and downspouts are typically coated with paint or a baked-enamel finish in a color appropriate to the color of the house, unless they are made of copper.

Masonry walls, foundations, and chimneys in the district generally reflect the natural colors of the bricks or the stones and the mortar used. Because paint eliminates the inherent color variation of masonry and requires continuing maintenance, painting previously unpainted masonry is not considered appropriate. However, if the masonry is already painted, a color should be selected to echo the color of the brick or the stone when repainting. To differentiate the masonry foundations of frame houses, painted foundations should contrast with the color of the siding.

Where materials are varied on a building exterior, paint colors often accentuate the material change. For example, wooden shingles are typically stained rather than painted, to offer a contrast in color to painted clapboards. Generally in the district, the siding of a frame building is painted in a contrasting color to the trim color. Trim work includes window and door frames, cornerboards, cornices, porch columns and balustrades, and other decorative elements. Historically, window sashes were often painted to match the exterior trim color, except during the late Victorian era, when more complex color schemes were popular. The color of painted exterior doors either matched the sash or trim color, or highlighted the door in an accent color. Many front doors in the district were stained and varnished rather than painted.

Porch ceilings in the district are often painted in a light sky blue or white. Wooden porch flooring is most typically painted in a medium-value gray.

Generally, picket fences are painted white, whereas most cast- and wrought-iron fences are painted dark brown, dark green, or black.

Where they are appropriate, fabric awnings and signs provide opportunities to introduce compatible colors that enhance the existing palette of a historic building.

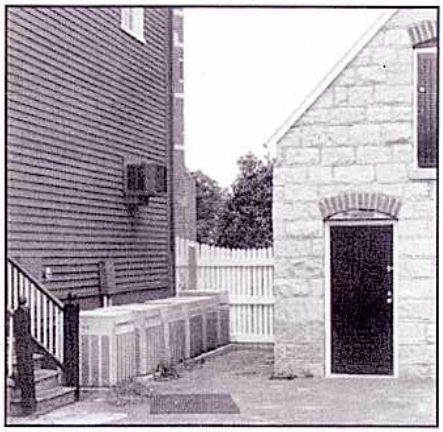
The color of all exterior elements and materials should be considered when selecting appropriate colors for a building. Appendix A includes a sample color schedule form that may be helpful in developing a proposed color palette.

## Exterior Color: Guidelines

1. Select material and paint colors appropriate to the historic building and district.
2. Selection of paint and stain colors based on research on historic finishes is encouraged.
3. Enhance the architectural character of a historic building through appropriate placement of exterior paint colors.
4. Use variations in paint color to reflect variations in material on the building's exterior.
5. Paint previously painted foundations in dark colors that best reflect the foundation material.
6. Generally, it is not appropriate to install light-colored asphalt shingles.
7. Coat replacement gutters and downspouts with paint or a baked-enamel finish in a color appropriate to the color of the house, unless they are made of copper.
8. Coat exterior storm windows with paint or a baked-enamel finish in a color appropriate to the color of the house, usually the same color as the window sash or trim.
9. It is not appropriate to apply paint or other coatings to unpainted fence or wall materials that were historically not coated.
10. It is not appropriate to paint front doors that were historically stained or varnished unless the doors have been substantially patched.
11. Paint wooden fences white or a color that coordinates with the exterior colors of the building.
12. It is not appropriate to use unfinished lumber or decking as the finished appearance of a deck or an exterior stair. Make the paint or stain color compatible with the historic building.
13. For fabric awnings, select colors that are compatible in hue and intensity with the exterior colors of the historic building.

Both canvas awnings and extending porches are traditional energy-conserving features.


Storm doors and windows can increase the energy efficiency of historic buildings.



A white privacy fence screens mechanical units at the rear of this building from public view.

## Utilities and Energy Retrofit

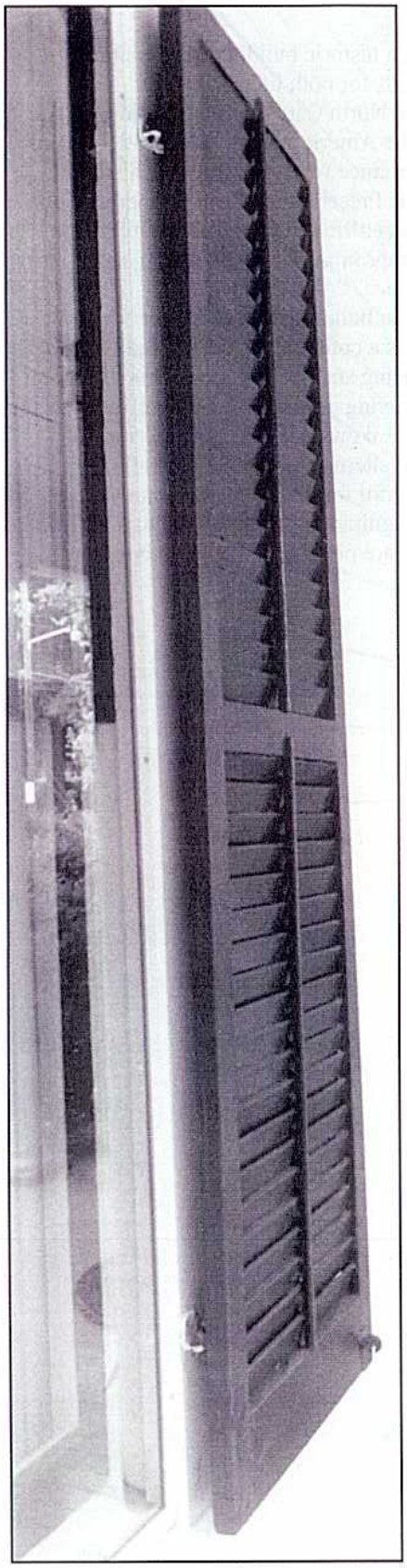
Many features of historic buildings are inherently energy efficient. For example, operable transoms, windows, awnings, and shutters provide opportunities for conserving energy. Enclosed vestibules, extending porches, and even plantings help buffer historic interiors from the elements. Capitalizing on energy-efficient historic features and sensitively retrofitting historic buildings can maximize their energy-conserving potential.

Often, the energy efficiency of older windows is compromised when the weatherstripping around the sash is not maintained and the glazing compound that seals the glass panes within the wooden sash deteriorates. Weatherstripping around doors must be maintained as well, to prevent air infiltration. Once existing windows and doors have been repaired as needed, storm windows and doors can be installed to provide a second barrier to the elements. Care must be taken not to damage or obscure the windows and the doors in the process. Interior storm windows are encouraged as an alternative to exterior storm windows. However, exterior storm windows with a painted or baked-enamel finish in a color appropriate to the color of the building are acceptable. Stained or painted wooden storm doors with large glass panels are also acceptable.

Utility work on the public right-of-way or on private property may require a certificate of appropriateness. For example, the installation of a new utility pole requires a certificate, although the replacement of existing poles in the same location does not.

When introducing new mechanical and electrical equipment and lines, care must be taken that historic features of the building are not damaged or obscured. All such equipment should be located in the least visible location and appropriately screened. Window air-conditioning units are acceptable in the district, but they should be located as inconspicuously as possible.

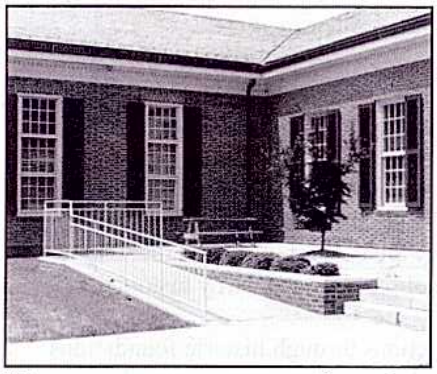
Large antennas and satellite dishes are intrusive, and inconsistent with the residential character of the historic district.



## Utilities and Energy Retrofit: Guidelines

1. Retain and preserve the inherent energy-conservation features of a historic building, such as porches, operable windows, transoms, and louvered shutters.
2. Improve thermal efficiency by installing weatherstripping, storm windows, caulk, and if they are historically appropriate, fabric awnings and shutters.
3. It is not appropriate to replace transparent glazing in windows and doors with tinted or mirrored glazing.
4. It is not appropriate to replace multiple-paned doors or window sashes with thermal sashes using snap-in, false muntins.
5. Generally, it is not appropriate to replace operable windows or transoms with fixed glazing.
6. Install interior or exterior storm windows so that the existing windows and frames are not damaged or obscured. Select exterior storm windows that are coated with paint or a baked-enamel finish in a color appropriate to the color of the building.
7. Select wooden storm or screen doors that are stained in a natural wood color or painted to match the building or the trim. Install storm or screen doors so that the existing door and frame are not damaged or obscured. Metal storm or screen doors are not appropriate.
8. If fabric awnings are historically appropriate, install them in porch, door, or window openings so that architectural features are not concealed or historic materials damaged. Select colors appropriate to the color of the building.
9. If wooden shutters are historically appropriate, install them sized to window openings and mounted so that they are operable.
10. Locate roof ventilators, antennas, and solar collectors on non-character-defining roofs or inconspicuously on rear slopes where they will not be visible from the street. It is not appropriate to locate them on front or street elevations.
11. Install low-profile ridge vents if they are desired, provided that they do not diminish the original design of the roof or destroy historic roofing materials and details.
12. Locate vents and mechanical connections through historic foundations or walls on non-character-defining elevations or inconspicuously on side or rear walls where they will not be visible from the street.
13. Install mechanical equipment such as heating and air conditioning units in areas and spaces requiring the least amount of alteration to the appearance and the materials of the building. Screen the equipment from view.
14. Locate exposed exterior pipes, wires, meters, and fuel tanks on rear elevations or along an inconspicuous side of the building. Screen them from view.
15. Installation of underground utility service is encouraged if it will eliminate overhead lines and poles.
16. It is not appropriate to introduce blown-in insulation through an exterior wall of a building.
17. It is not appropriate to use rapid-expanding insulating foam as it may damage historic window and siding details.
18. Locate window air-conditioning units on rear or inconspicuous elevations whenever possible.
19. It is not appropriate to install large antennas and satellite dishes in the historic district.

This exterior firestair is inconspicuously located on the building's rear elevation.



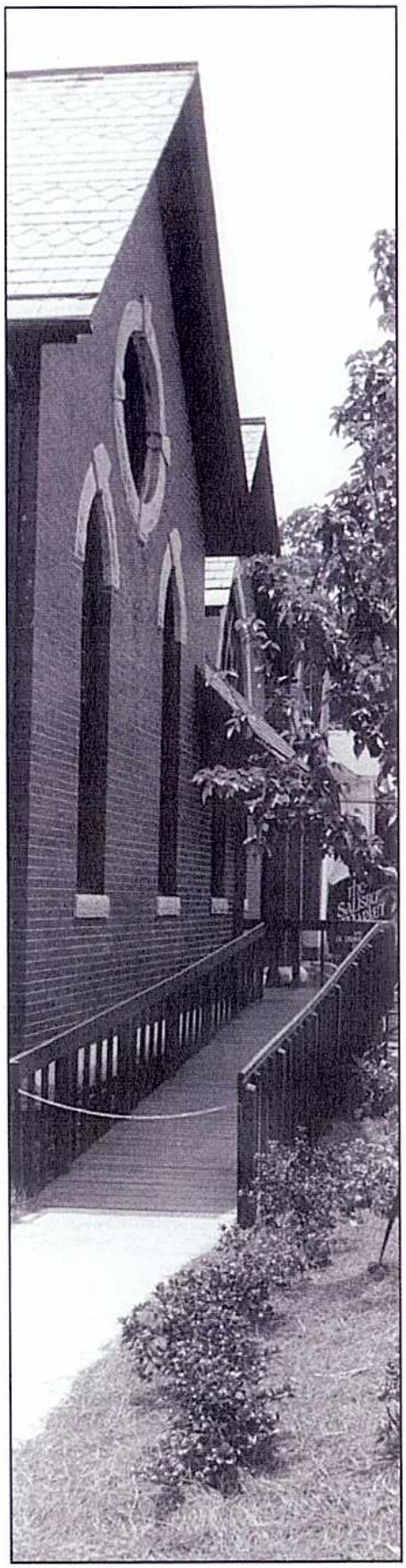
This contemporary concrete ramp with simple metal railing was discreetly incorporated on a side rear elevation.

An unobtrusive metal handrail improves accessibility to this front porch without compromising its historic character.

## Life Safety and Accessibility

A new use or a substantial rehabilitation of a historic building can result in requirements to meet contemporary standards for both life safety and accessibility to people with disabilities. The North Carolina State Building Code and the federal guidelines for adhering to the Americans with Disabilities Act of 1990 both provide some flexibility in compliance when dealing with historic buildings. In the historic district the Historic Preservation Commission bases its review of proposed exterior alterations to meet life safety and accessibility standards on whether the alteration will compromise the architectural and historic character of the building and the site.

Given the foundation height of most buildings in the district, accessibility to the entrance by wheelchair is a common problem, usually requiring a ramp over 20 feet long. Introducing such a large feature on the exterior of a historic building without destroying or diminishing significant architectural features is clearly a challenge. Likewise, adding an exterior fire stair or fire exit requires careful study of all alternatives. Less demanding revisions, such as the introduction of a handrail for the front steps, can be resolved more simply. Regardless of the magnitude of an alteration to a historic building, temporary and reversible changes are preferred over permanent and irreversible ones.



## Life Safety and Accessibility: Guidelines

1. Review proposed new uses for existing historic buildings to determine if related building code and accessibility requirements are feasible without compromising the historic character of the building and the site.
2. Meet health and safety code and accessibility requirements in ways that do not diminish the historic character, features, materials, and details of the building.
3. Locate fire exits, stairs, landings, and decks on rear or inconspicuous side elevations where they will not be visible from the street.
4. It is not appropriate to introduce new fire doors if they would diminish the original design of the building or damage historic materials and features. Keep new fire doors as compatible as possible with existing doors in proportion, location, size, and detail.
5. When introducing reversible features to assist people with disabilities, take care that the original design of the porch or the entrance is not diminished and historic materials or features are not damaged.
6. If possible, comply with accessibility requirements through portable or temporary, rather than permanent, ramps.